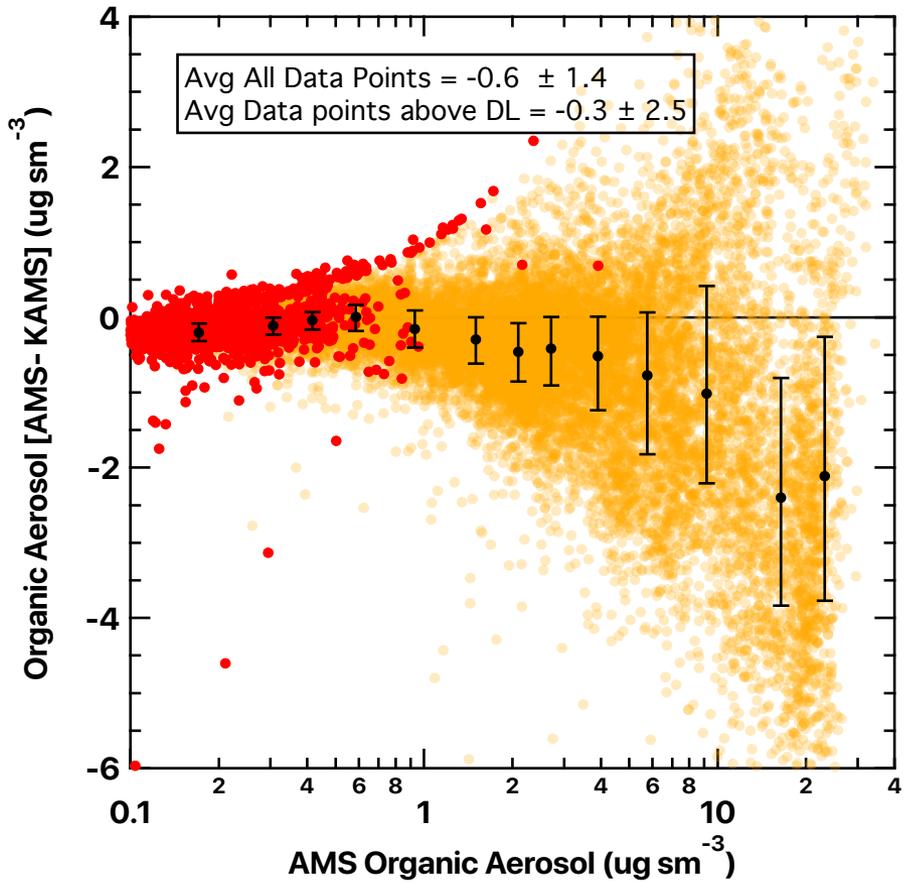
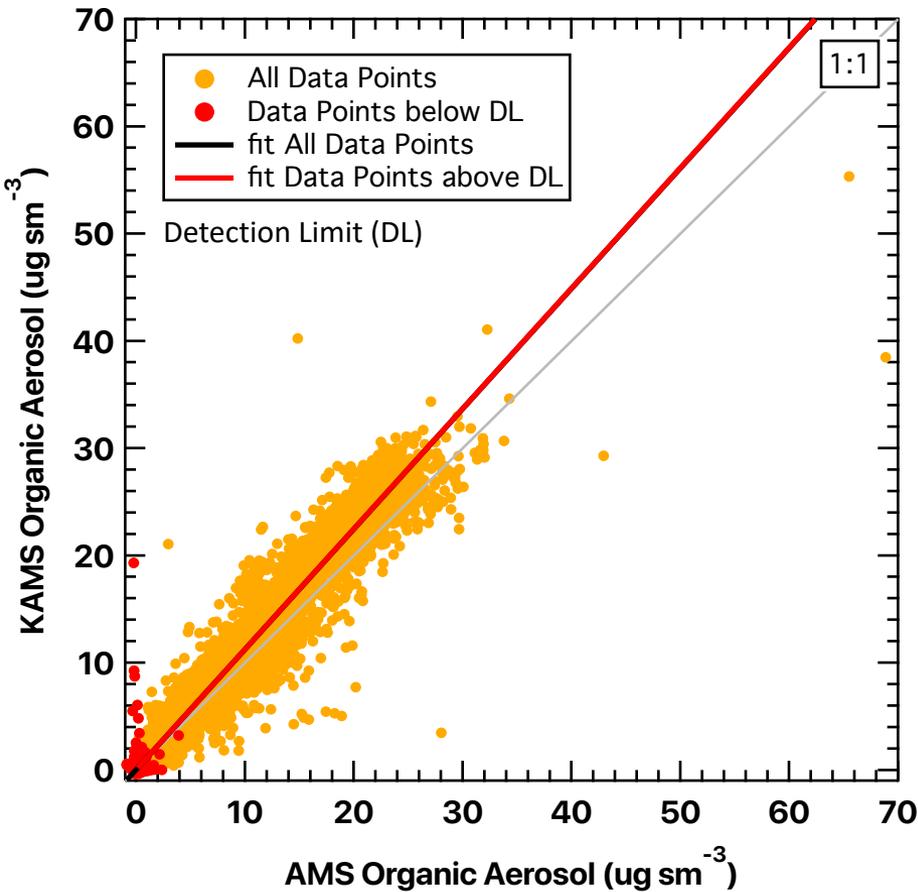


# Organic Aerosol – KAMS vs AMS (Research Flights 1-9, 11, 15, 19)

KAMS LLOD values not provided, assume values under precision level are less than the detection limit.



**All Data Points**  
 $y = a + bx$   
 $a = 0.055 \pm 0.012$   
 $b = 1.121 \pm 0.0017$   
 $R^2 = 0.956$

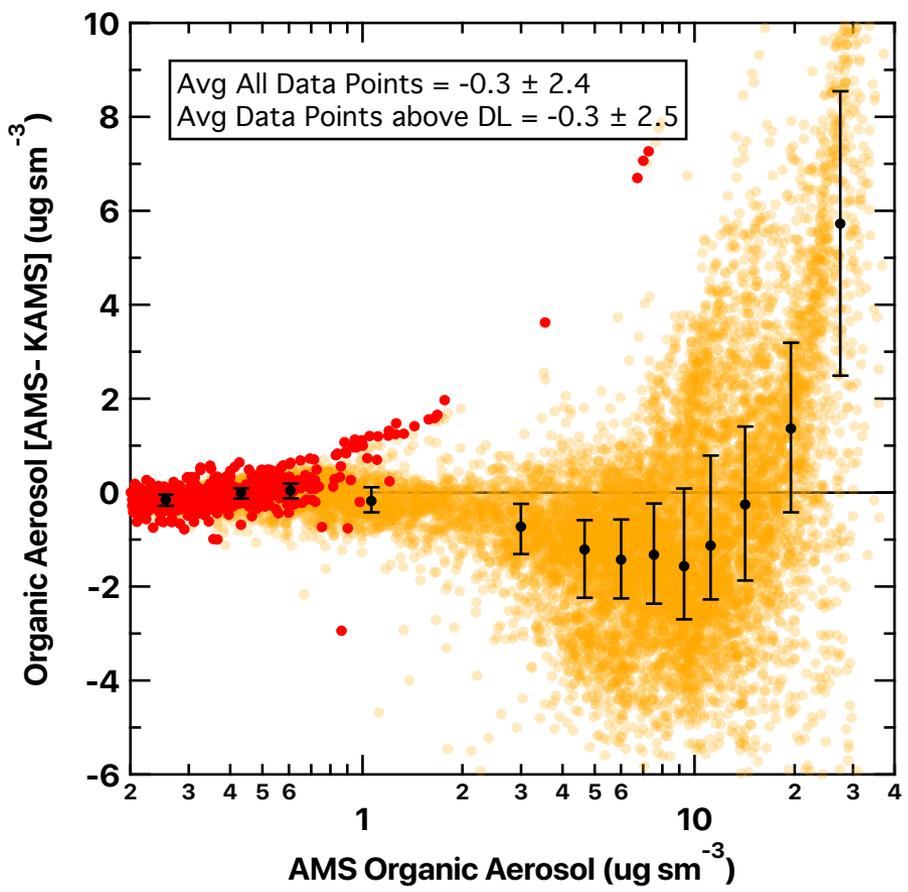
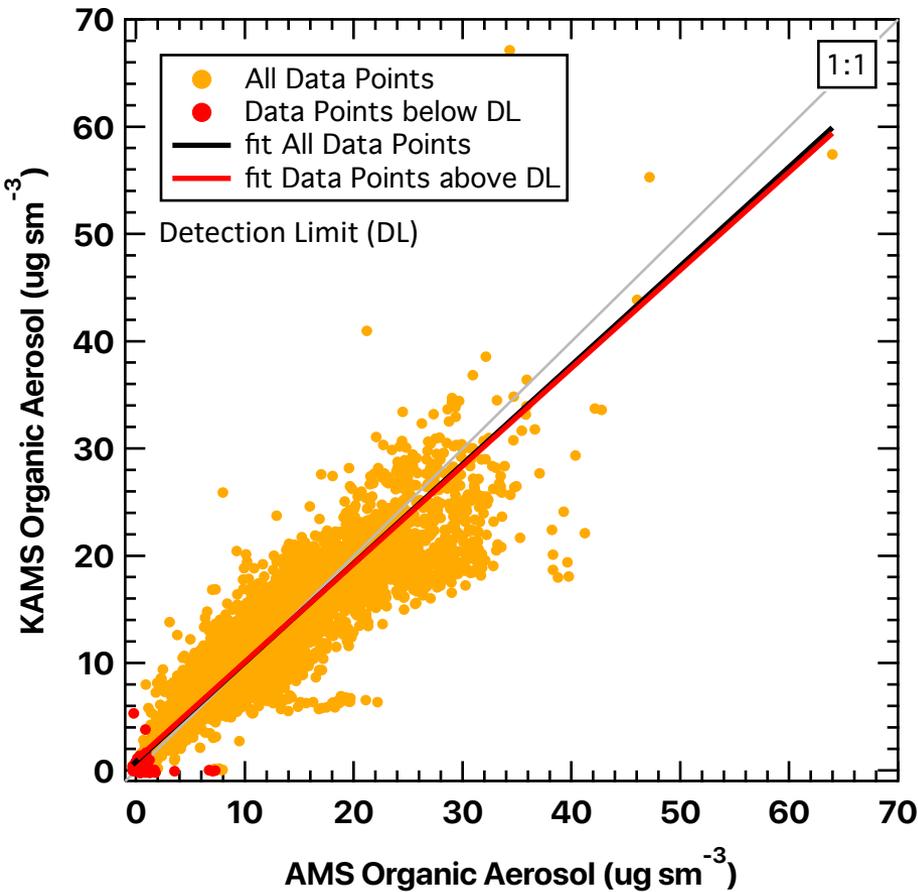
**Data Points Above DL**  
 $Y = a + bx$   
 $a = 0.041 \pm 0.014$   
 $b = 1.1218 \pm 0.0019$   
 $R^2 = 0.955$

(● All Data Points, ● Data Points < DL)

— 75<sup>th</sup> Percentile  
 ● Median  
 — 25<sup>th</sup> Percentile

# Organic Aerosol – KAMS vs AMS (Research Flights 10, 12-14, 16-18, 20)

KAMS LLOD values not provided, assume values under precision level are less than the detection limit.



**All Data Points**  
 $y = a + bx$   
 $a = 0.851 \pm 0.029$   
 $b = 0.9235 \pm 0.0028$   
 $R^2 = 0.889$

**Data Points Above DL**  
 $Y = a + bx$   
 $a = 0.993 \pm 0.032$   
 $b = 0.9135 \pm 0.0030$   
 $R^2 = 0.880$

( ● All Data Points, ● Data Points < DL )

75<sup>th</sup> Percentile  
 Median  
 25<sup>th</sup> Percentile

**Data:**

- KORUSAQ-AMS-60s\_DC8\_#####\_R1.ict (##### = daily files from 20160501 – 20160609)
- KORUSAQ-KAMS\_DC8\_#####\_R3.ict (##### = daily files from 20160501 – 20160609)

**Correlation:**

- Merged AMS 60s to KAMS time interval.
- AMS 60s DL: reported in data file, propagated to KAMS time interval.
- KAMS DL: LLOD values not provided, assume values under precision level are less than the detection limit.
- Research flights separated per the recommendation of PIs, Research flights (1-9, 11, 15, 19) and Research Flights (10, 12-14, 16-18, 20).
- Data reported at STP (273 K & 1013 mb).
- Fit lines are derived from orthogonal distance regressions.
- $R^2$  values are calculated independently, not from orthogonal distance regression.
- Data points below the DL/precision are colored red.

**Difference dependence on  $\text{NO}_3$  value:**

- Difference calculated by AMS 60s - KAMS.
- Median, 25<sup>th</sup>, and 75<sup>th</sup> percentiles based on 1500 data point bins (Early Flights) and 1000 data point bins (Late Flights) after data is sorted by AMS 60s values.